

as a conventional gallon of gasoline and would thus be a disaster for global warming. Trying to sequester the carbon dioxide underground during the refining process would be hugely expensive."

Despite all these caveats, there was still a measure of excitement that Mr. Bush for the first time in his six years in office mentioned climate change in his State of the Union address.

"It was just a couple of dozen words out of more than 5,000, uttered so fast that many in the audience missed them at first," the *Washington Post* reported. "But President Bush's commitment to fight global warming in his State of the Union address this week has echoed around the world and provoked debate about whether he is shifting his view of climate change."

The phrase did elicit hopeful comments from Prime Minister Tony Blair and other world leaders. But in the US, there seemed little optimism that the words actually represented a change of heart. "To be perfectly frank, I thought it was an appalling disappointment for everyone, whether you're on the right or the left," Samuel Thornstrom, a former Bush environmental aide told the *Post*. "We had all been led to expect . . . that we would hear a very substantial initiative from the president." Instead, he went on, the plan is "essentially trivial, it's marginal".

Marginal for the global climate, perhaps. But not so for ethanol producers. And it's not marginal for other consumers of corn. They are already seeing big price increases on the world market, as the thirst for ethanol grows. Indeed, the weekend after the speech, the *Washington Post* ran a story about tortilla makers in Mexico, who are watching their meager businesses evaporate as this staple food becomes too expensive for poor consumers.

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Tuna crisis looms

A first effort at a new international agreement on limiting tuna fishing has failed but catches must still be reduced, writes **Nigel Williams**.

Hopes that the first joint meeting of the world's five regional tuna management organisations in Kobe last month might lead to strengthened measures to manage the fishing of these increasingly exploited species faded with little outcome conservationists saw of value.

Government members of the five organisations failed to agree on concrete action to reduce fishing capacity to sustainable levels, ensure only legally caught supplies of tuna to markets, reduce the fisheries' bycatch of species like turtles, seabirds and sharks, and ensure that developing countries can enter tuna fisheries sustainably, the Worldwide Fund for Nature (WWF) said.

Despite Japan's and other governments' admission that tuna stocks are in a critical state, that urgent action is needed, and that solutions already exist, they have failed to agree on any new concrete actions. The only agreement at the meeting was to gather more data and meet more often, the WWF said. "This inaction will result in further depletion of tuna populations, degradation of the oceans, loss of tuna to eat and ultimately lead to a loss of livelihoods across the world."

"More than 200 officials travelled to Japan with little achieved except a plan to hold more meetings. We hold government representatives personally responsible for reversing the decline in tuna populations," said Simon Cripps, director of the WWF's global marine programme.

Regional fisheries management organisations (RFMOs) are the main mechanism developed by countries to regulate fishing in the open ocean — areas beyond national law — where most tuna catches occur. Despite efforts by some governments within

tuna RFMOs, global tuna stocks are critically depleted and some species, such as the bluefin, used for sushi and sashimi, are at high risk of collapse. Although this first meeting of the world's five tuna management bodies failed to reach concrete measures to drastically cut global tuna catches, the following week Japan agreed to cut its Atlantic bluefin tuna catch by more than 20 per cent by 2010 in line with an agreement reached last November with one of the five regional bodies — the International Commission for the Conservation of Atlantic Tunas (ICCAT). Catches will be cut from 32,000 tonnes to 25,500 tonnes in 2010.

But the small scale of this reduction has angered some conservationists. At a meeting in Croatia last November, ICCAT scientists warned that the bluefin tuna are at such a high risk that the fishery may collapse unless the allowable catch was halved in an effort to conserve them.

But the European Union defended the more modest cuts. Joe Borg, the EU's commissioner for fisheries and maritime affairs, said the measures agreed by ICCAT "represent a realistic chance for the gradual recovery of the bluefin tuna and, also importantly, for the sustainability of other fisheries, the fleets and the coastal communities involved."

But this position was challenged by Bill Hogarth of the US National Ocean and Atmospheric Administration, who chaired that ICCAT meeting and presented the US position. This argued that the current fishing mortality rate was more than three times the level that would permit the tuna population to stabilize at the level of maximum sustainable yield.

"Current fishing is expected to drive the spawning biomass to a very low level", the ICCAT scientists wrote in their report ahead of that meeting. "Those low levels are considered to give rise to a high risk of fishery and stock collapse."

Under the new ICCAT agreement, Japan will reduce its total catch of the Atlantic bluefin



Dwindling: Traditional fishing of tuna in coastal waters as here in Mexico has gone on for centuries, but recent open-sea, industrial fishing is driving many tuna species close to extinction. (Picture: Photolibrary.)

tuna — which produces some of the most sought after meat on the Japanese market — from 2,830 tonnes in 2006 only to 2,174 tonnes in 2010. The European Union agreed to reduce its catch from 18,300 tonnes in 2006 to just 14,500 tonnes in 2010.

The fish has been a staple for Mediterranean countries since ancient times and scientists will continue to argue that cutbacks in fishing will still have to be much more drastic than those ICCAT agreed last year to ensure the commercial survival of the species.

And concerns continue to grow about the sustainability of the world's supply of many other tuna species. The tuna export market was worth a lucrative \$5 billion in 2002 according to the UN's Food and Agriculture Organisation. In 2004, the number of adult Atlantic bluefin tuna capable of breeding had plummeted to roughly 19 per cent of the 1975 level in the western half of the ocean, according to ICCAT data.

The ICCAT scientists concluded last year that the species is in the 'danger zone', at risk of severe

decline and stock collapse due to inadequate management measures and widespread illegal fishing. Measures recommended by the scientists included longer and earlier seasonal closure to protect spawning fish and a reduction by a half of total allowable catch, together with strict observation and reporting activities.

"Realised catches during the next few years implied by fully implementing these actions are expected to be in the order of 15,000 tonnes", the scientific committee said, well below the newly agreed catches adopted by the ICCAT.

Catches could rise to 45,000 tonnes or more with substantial increases in spawning biomass, if its advice is followed, said the scientific committee, but for a long-lived species, such as the bluefin tuna, it will take more than 10 years to realise the benefit.

Instead, the ICCAT meeting adopted a plan that provides for only a modest reduction in the total allowable catch of eastern bluefin from its area of jurisdiction and the ICCAT countries failed

to impose the recommended fishing closure during the bluefin spawning season of April to June for purse-seine fishing boats, which take 80 per cent of the catch.

Many catches are also under-reported because catch levels are not enforced, the scientific committee said. In addition, there is a lack of reliable historical information for many fleets, "therefore severe over-fishing can easily go undetected".

And the growing value of these fish is also driving demand. One fish can sell for tens of thousands of dollars. The highest amount paid for a bluefin was \$180,000 in Japan.

These decisions sound like "the death knell for Mediterranean bluefin tuna," said the WWF. This verdict "gives the green light to overexploitation of bluefin tuna. This is a plan for collapse, not recovery of the stock, and a mockery of the work of scientists," said Tony Long, director of the WWF European policy office.

The ICCAT plan covers the next 15 years and will face its first review next year.